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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YANG, RYAN R

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/864,128	VAN LIERE, FILIPS	
	Examiner	Art Unit	
	Ryan R. Yang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 7/21/2005.

This action is final.

2. Claims 1-13 are pending in this application. Claims 1, 7 and 13 are independent claims. In the Amendment, filed on 7/21/2005, claims 1, 7 and 13 were amended.

3. This application claims foreign priority dated 5/24/2000.

4. The present title of the invention is "Method and apparatus for shorthand processing of medical image, wherein mouse positionings and/or actuations will immediately control inherent image processing functions, and a pertinent computer program" as filed originally.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. (6,229,541) and further in view of Hilton et al. (US 5,452,416).

As per claim 1, Kamen et al., hereinafter Kamen, discloses a method for providing and processing a cursored user interaction with a spatially displayed medical image and performing image processing on said medical image, said method comprises the steps of:

providing a menu-less graphical interface having a plurality of sensitive areas, each sensitive area is positioned at predetermined relative position with respected to an associated medical image display field and with respect to at least one additional

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sensitive area (Figure 1, where item 4a to 4d correspond to a “template”, and “in one embodiment, screen 2 displays a still image”, column 3, line 1-4, each one of the area is considered a predetermined relative position with respect to an associated image and with respect to the other sensitive areas), wherein each of the plurality of sensitive areas is associated with one of a plurality of different cursors (“when cursor 8 is moved to one of regions 4a to 4d, cursor 8 changes appearance (e.g. cursor changes shape, color, light intensity, or otherwise manifests a changed appearance”, column 3, line 46-49); and

controlling a mouse configured such that positionings of said mouse within each of said plurality of sensitive areas causes display of one of the plurality of different cursors (“A user manipulates cursor 8 with a control device, e.g. a remote controller 10 comprising a joystick, trackball, mouse, touch pad (e.g. touch pad 11a) or appropriate control buttons 11b”, column 23-27) and allows activation and control of a plurality of inherent processing functionalities for performing the at least one function respectively associated with each of said plurality of sensitive areas (“templates can be used for secure link (process) activation”, see abstract, line 8-9, and “If a user moves cursor 8 to region 4a, a link is invoked corresponding to region 4a. If the user moves cursor 8 to region 4b, a link is invoked corresponding to region 4b, and so forth” (column 3, line 26-29), where the inherent processing functionalities are invoked by the link).

Kamen discloses a method of using templates to invoke a process. It is noted that Kamen does not explicitly disclose wherein each of the plurality of sensitive areas **corresponds to at least one function** and is associated with one of a plurality of

different cursors **providing a visual cue as to the at least one function corresponding to each of the plurality of sensitive areas.**

However, this is known in the art as taught by Hilton et al., hereinafter Hilton. Hilton discloses a method of manipulating medical image in which at a predetermined location and when the left mouse button is held down, a series of function and its corresponding cursor shape is rotated to be selected (column 15, line 35- column 16, line 68).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Hilton into Kamen because Kamen discloses a method using templates to invoke a process and Hilton discloses a method rotating a function without moving the cursor in order to easily select a function.

7. As per claim 7, Kamen and Hilton disclose an apparatus for providing and processing cursored user interactions with a spatially displayed medical image and for producing graphics related data on said medical image, said apparatus comprises all the elements as in claim 1, and, therefore, is similarly rejected as claim 1.

8. Claims 3-5, 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. and Hilton et al. as applied to claim 1 above, and further in view of Chekerylla (6,084,598).

As per claims 3 and 9, Kamen and Hilton demonstrated all the elements as applied to the rejection of independent claims 1 and 7, supra, respectively.

Kamen and Hilton disclose a method of using templates to invoke a process. It is noted that Kamen and Hilton do not explicitly disclose selecting image mirror or rotation

transformations, however, this is known in the art as taught by Chekerylla. Chekerylla discloses a method of processing input through a plurality of buttons including image mirror or rotation transformation (Figure 2 and 5).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chekerylla into Kamen and Hilton because Kamen and Hilton disclose a method using templates to invoke a process and Chekerylla discloses the process can be image mirroring and rotation in order to quickly and easily manipulate an image.

9. As per claims 4 and 10, Kamen and Hilton demonstrated all the elements as applied to the rejection of independent claims 1 and 7, supra, respectively.

Kamen and Hilton disclose a method using templates to invoke a process. It is noted that Kamen and Hilton do not explicitly disclose selecting image zoom or pan transformations, however, this is known in the art as taught by Chekerylla. Chekerylla discloses a method of processing input through a plurality of buttons including image zoom or pan transformations (Figure 14 1402 and 1410).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chekerylla into Kamen and Hilton because Kamen and Hilton disclose a method using templates to invoke a process and Chekerylla discloses the process can be image zooming or pan transformation in order to quickly and easily manipulate an image.

10. As per claims 5 and 11, Kamen and Hilton demonstrated all the elements as applied to the rejection of independent claims 1 and 7, supra, respectively.

Kamen and Hilton disclose a method using templates to invoke a process. It is noted that Kamen and Hilton do not explicitly disclose selecting shutter masking of the display field, however, this is known in the art as taught by Chekerylla. Chekerylla discloses a method of processing input through a plurality of buttons including selecting shutter masking of the display field ("the computer program ... uses bitmap masks to apply the changes to an irregular section of the whole image", column 8, line 7-12).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chekerylla into Kamen and Hilton because Kamen and Hilton disclose a method using templates to invoke a process and Chekerylla discloses the process can be selecting shutter masking of the display field in order to quickly and easily manipulate an image.

11. As per claim 13, Kamen and Hilton disclose a machine-readable computer program, said program being arranged for processing a censored user interaction with a spatially displayed medical image and performing image processing on said medical image, said method comprises all the steps as in rejected claim 1, except the step: controlling outputting representations of said processing functionalities.

Kamen and Hilton disclose a method using templates to invoke a process. It is noted that Kamen and Hilton do not explicitly disclose controlling outputting representations of said processing functionalities, however, this is known in the art as taught by Chekerylla. Chekerylla discloses a method of processing input through a plurality of buttons the where image can be manipulated (see Figure 7-14).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chekerylla into Kamen because Kamen discloses a method using templates to invoke a process and Chekerylla discloses the process includes image manipulation in order to quickly and easily manipulate an image.

12. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen and Hilton as applied to claim 1 above, and further in view of Motzer (6,301,512).

As per claims 2 and 8, Kamen and Hilton demonstrated all the elements as applied to the rejection of independent claims 1 and 7, supra, respectively.

Kamen and Hilton disclose a method of using templates to invoke a process. It is noted that Kamen and Hilton do not explicitly disclose the function of selecting grey range and/or color range windowing through geometrical mouse positioning, however, this is known in the art as taught by Motzer. Motzer discloses a graphical display system in which the color range of the image can be adjusted through mouse actuation (Figure 13C 392).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Motzer into Kamen and Hilton because Kamen and Hilton disclose a method of of using templates to invoke a process and Motzer discloses the color of the image can be adjusted in order to better understand the resulted image.

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13. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen and Hilton as applied to claim 1 above, and further in view of Goldberg et al. (5,963,203).

As per claims 6 and 12, Kamen and Hilton demonstrated all the elements as applied to the rejection of independent claims 1 and 7, supra.

Kamen and Hilton disclose a method of using templates to invoke a process. It is noted that Kamen and Hilton do not explicitly disclose the function of selectably navigating through a sequence of images that base on marginal stepping with respect to an imaged object, however, this is known in the art as taught by Goldberg et al., hereinafter Goldberg. Goldberg discloses a method of viewing a sequence of image in which "selection of basic frames/objects for the root image, extractable objects and the like by stepping slowly through the video sequence and, for example, using a mouse to place a cursor on frames or points of frames which are of interest", column 14, line 14-18.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Goldberg into Kamen and Hilton because Kamen and Hilton disclose a method of using templates to invoke a process and Goldberg discloses a method of stepping a sequence of stored images in order to increase the viewing options of the images.

Response to Arguments

14. Applicant's arguments, see Amendment, filed 7/21/2005, with respect to the rejection(s) of claim(s) 1-13 under Kamen and Chekerylla have been fully considered

and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kamen, Hilton and Chelerylla.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiries

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan R Yang whose telephone number is (571) 272-7666. The examiner can normally be reached on M-F 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ryan Yang
Primary Examiner
September 29, 2005